of thought and energy to the solution of the problems involved.

I have been present at several of their meetings and conferences as well as at the regular and special meetings of the Society where the subject was discussed.

In its report the committee submits a substantial increase in rates, greatly simplified report blanks for general use, and makes the statement that the carriers would welcome the appointment of a standing committee from the Society to which all matters in dispute between the companies and the profession would be referred and would in turn appoint one themselves to co-operate.

The attorney of your Society, Hartley Peart, has as usual given up unselfishly not only his time but his very best thought and more especially a loyal friendship accompanied by a loving understanding of medical ideals, medical ambitions and medical men. I ask you to listen especially carefully to his report.

No claimant has been found entitled to any judgment against any member of the Society during the past year for alleged acts of negligence. Those members of the Society who have joined the Indemnity Defense Fund have the satisfaction of knowing that the resources of the Fund have remained unimpaired except for two small settlements from the time that this co-operative protection was established in December, 1916.

During the year the membership in the Fund has very greatly increased. Those of you who have not joined it should not hesitate longer before doing so. You owe it to yourself and your family to secure this protection which we believe to be superior to any other, and even though you may be insured in private companies you should add to that insurance a membership in the Fund. As the Chairman of the Council and the Legal Department will present reports more in detail on these subjects, I will not go into further detail concerning them.

I began this address with a eulogy of the natural environment in which you pursue your tasks.

I will close by congratulating you on being the best organized group of medical men in the world today and by praising you for having effected your well knit and interlocking organizations on an unselfish basis of service to the public.

But do not forget that while we are becoming better doctors we must also become better soldiers in this army that we have created because the forces of ignorance like those of evil will always be prepared for an attack and will ever select for their opponents, those who are of the greatest service to the world—the proponents of knowledge.

CAMPAIGN ISSUES.*

By DUDLEY A. SMITH, M. D., President of the League for the Conservation of Public Health Santa Barbara, May 12, 1920

A year ago in this very room the League held its first luncheon at a convention of the State

Medical Society. When we were invited to fill a similar place on this year's program we accepted gladly; for all the work that we have been doing has been for the upbuilding of the medical profession, and we have been successful in our work because we have received the untiring, enthusiastic and active co-operation of the medical profession throughout the State.

We told you last year that the League was a 365-day organization that was both on and on to its job, always ready for fight or frolic, for emergency or regular service. We had scarcely left Santa Barbara when we were called upon to make good our promises by doing heroic emergency work.

Whilst we physicians and surgeons were engaged in profound discussions and delightful exchange of erudite ideas down here by the opaline seas, a minority, that some considered negligible, impressed the Legislature so favorably and forcibly that the title of physician and surgeon, which we all prize as a precious possession, was whole-saled to this inferior minority at the bargain price of \$25.00 per title—and mark you, without any examination.

GOVERNOR VETOES BILL

The League wired the Governor and called his secretary on the long distance asking that his Excellency withhold his signature and accord us an opportunity to present arguments and show that this Osteopathic Bill was a menace to the public health. A brief stay of execution was granted. We were allowed 36 hours to mobilize our forces. A dozen long distance telephones got busy. Before the hour arrived for the hearing in Sacramento the Senate Chamber was filled with leading representatives of the profession from all sections of the State. Many who could not come on such brief notice wired the Governor reasons, in respectful language, why he should veto the bill. It was said by one of the doctors who attended that memorable meeting that if those who came in answer to that emergency summons were called into consultation to see a millionaire, the combined fee would be over a million. And the glory of that coming to Sacramento by the leading representatives of scientific medicine; that demonstration of interest in the public welfare was worth over a million to the public health of this State—when you pause to consider how the health of the men, women and children would have been jeopardized if hundreds, yes thousands, of incompetent men and women, without experience or training, would have been turned loose by that bill on an unsuspecting public with unlimited license to prescribe drugs and perform operations. It hardly seems possible at this distance from Sacramento, and especially in this scientific atmosphere, that a majority of the Legislature considered your title and mine worth only \$25.00. That, however, would be the law of the State to-day if it had not been for the well-directed efforts of the League.

In reviewing the medical legislation of this country, we find very few facts upon which to congrat-

^{*}Read before the League for the Conservation of Public Health at the Forty-ninth Meeting of the Medical Society, State of California, Santa Barbara, California, May, 1920.

ulate the medical profession. For a long period the public was willing to leave in the hands of the medical profession the examining and licensing of its own members. It was believed that this would be the most effective method to protect the public against ignorance and imposition. This plan was adopted by the people to govern two professions—the medical and the legal. The medical profession, for reasons well known to all of you, lost the privilege, the laws were repealed and other laws restricting, hampering and undermining the medical profession were passed.

CONTRAST MEDICAL AND LEGAL PROFESSIONS.

The legal profession still has entire control of admission to its profession and expulsion from it. There are no cults or sects in the legal profession. Qualifications for admission are based solely on educational and moral character. The legal profession takes an active interest in civic affairs and in making the laws by which it and all the rest of us are governed. The medical profession, in some States, considers it almost unethical to know the name of an Assemblyman or State Senator-such profane knowledge seems to disturb its laboratory findings. We know in California, however, that the action of your Assemblyman or my Assemblyman may disturb not only the laboratory findings, but the laboratory foundations. We know the Legislature has plenary power to determine the laws under which we practice, and the chief reason that legislatures in various States have passed laws that weaken and impair medical practice and imperil the public health is because no consistent organized effort was made by the medical profession to inform the members of the Legislature.

We find the medical profession in New York serving notice that it will not serve the public if certain alleged social welfare laws are passed. We read last week of the medical profession in New Jersey passing resolutions condemning Governor Edwards, giving the resolutions to the public press in which the doctors promise political reprisals against the Governor and the Legislature, because the Executive and the solons passed obnoxious laws. No argument, however, was offered against these laws until they were passed. The scientific tears that we shed over spilled lacteal fluid will not irrigate any alfalfa, especially when we spill the beans in addition to spilling the milk, as the doctors did in New Jersey. Why did they Because they are not organized, they have no uniform policy or plan of action. One of the chief secrets of the success of the framers of the Constitution and the founders of this Republic was organization, consultation acting as a unit. Gladstone said, "the American Constitution is the most wonderful work ever struck off at a given time by the brain and purpose of man."

LEAGUE REFLECTS CONSENSUS OF OPINION.

Various writers in analyzing the Constitutional Convention, which met at Philadelphia in May, 1787, have observed the many shortcomings in the different plans offered by individual delegates, and how far superior the Constitution finally

adopted was to any individual plan. It represented the consensus of opinion. And that is what this League always aims to do for the medical profession. It is the consistent and persistent policy of the League to secure a consensus of opinion, get the facts, before it takes action. On controversial questions that have not been passed upon definitely by the medical profession, it is obviously improper for the League to take affirmative action. The League cannot be stampeded or its influence enlisted for private purposes.

FOUR CAMPAIGN QUESTIONS

There are four questions, however, that are campaign questions this year upon which the League has already assembled sufficient reliable information to warrant us in recommending their defeat.

WHAT ANTI-VIVISECTION WOULD DO TO CALIFORNIA

The first to which I invite your attention is the proposed initiative which the anti-vivisectionists are placing on the ballot to be voted on at the general election November 2, 1920.

Even a cursory examination of this proposed measure will reveal its pernicious character. It means, if adopted, the discontinuance of all experimental research work in general biology, in agriculture, in medicine and veterinary medicine in California. This would make the proper training of students in these essential subjects impossible. It would practically abolish in this State the manufacture of the numerous vaccines and sera that are used in the prevention and treatment of disease, impair the standardization of drugs and thereby seriously interfere with the practice of medicine.

Experimental diagnostic tests, so effectively used by physicians in their daily work for tuberculosis, syphilis and pneumonia, would be practically prohibited by this vicious measure. All scientific progress through experimental channels would be stopped. Public health work that must rely on experimental investigations for the conduct of campaigns against epidemics, would be completely handicapped, as under the provisions of this antivivisection initiative the scientific steps necessary to discover the causes and control any epidemic would be forbidden. Epidemiology would thereby cease to be a great vital force in California. The incalculable damage to the health and development of the State and the many other disastrous results that would necessarily follow the adoption of this measure are not obvious to the average voter, and therefore an educational campaign is demanded.

The danger that this initiative might be adopted will be apparent to you when you know that the proponents of the measure are extremely active and well financed. We all know how effective a sentimental appeal may be made, and how mendacious propaganda wins support when allowed to go unchallenged. The anti-vivisectionists this year seem to have an unlimited supply of misleading literature that will impose on many unless we conduct an effective educational campaign to counteract it.

WHY DO CHIROPRACTORS WANT INDEPENDENT BOARD?

The second measure is the Chiropractic Initiative which proposes to create a separate Board of Chiropractic Examiners. Under the present laws of California a chiropractor may take the drugless examination which requires only half the educational qualifications demanded for a physician and surgeon's certificate. So that any half-educated disciple of chiropractic may secure a license by passing the easy examination given by the State Board of Medical Examiners.

There are a number who are unable to meet the lowest requirements and who are practicing the healing art in defiance of the law. There are some of our public officials who look leniently upon and are very indulgent to violators of laws pertaining to the public health. There is nothing more vital to the public welfare than those laws that endeavor to sateguard the health of the people by making all, who treat diseases, injuries, deformities or other mental or physical conditions, pass a definite examination to determine their moral and mental qualifications.

Less than 1 per cent. of those licensed to practice in this State are chiropractors. There are a number practicing without license, and they have boasted in their own publication and in open letters that they will not submit to the Board of Medical Examiners of this State. They have come here with the avowed purpose of breaking down the present Medical Practice Act and establishing a board of their own through which all that are now practicing in violation of the law would be admitted to practice upon their own terms and without any competent control by the State.

They secured upwards of 65,000 signatures to their initiative petition and it will be voted on at the general election November 2, 1920. At the last session of the Legislature members of this small and almost insignificant group came within two votes of passing a bill that would give them all the special concessions that they are now asking direct from the people. The bill would have been passed had it not been for the effective work done by the League for the Conservation of Public Health.

The reason that such a small group was able to make such a strong impression on the Legislature is because it is active and well organized. The reason the League was able to defeat that bill and many others that contained lurking dangers was because the League had the organized machinery to place the facts impressively before the Legislature. Even when we have right on our side, if we don't get right side up with care, the right side will go down.

OSTEOPATHIC REFERENDUM

Another measure on which the medical profession should be prepared to give accurate information is the referendum which the osteopaths have placed upon Senate Bill No. 604. Senate Bill No. 604 amends Sections 7, 8 and 9 of the Act of March 6, 1907, regulating the sale and use of poisons in the State of California, and makes it unlawful

for any person to sell, vend or give away or furnish a hypodermic needle unless such instrument was purchased by a duly licensed physician, dentist or veterinarian to practice and prescribe medicine. All these various terms are defined in the Act and do not include an osteopath. Now, what an osteopath—the outstanding champion and exponent of the non-drug or drugless system of healing-wants with a hypodermic needle is not clear to me. It is absolutely inconsistent, but no one looks to cults for consistency. Cults don't wear that kind of jewelry. But we are justified in expressing surprise when we find the osteopaths placing a referendum to prevent the enforcement of a law that merely prohibits them from doing what they have long declared they never do and don't want to do, because it is wrong to do. Blessings brighten as they take their flight.

The osteopaths compose only 7 per cent. of the licensed practitioners of the State, and nevertheless they were powerful enough through their well-financed and directed organization to pass a pernicious bill at Sacramento last year.

CONSTITUTIONAL AMENDMENT PROPOSED BY THE PUBLIC SCHOOL PROTECTIVE LEAGUE.

A fourth measure—a Constitutional Amendment—will appear on the ballot at the general election November 2, 1920. It reads as follows:

"No form of vaccination, inoculation or other medication shall hereafter be made a condition precedent in the State of California, for the admission of any person to any public or private school, college, university or other educational institution, or for the employment of any person in any public or private business or industrial activity, or for the exercise of any right, the performance of any duty, or the enjoyment of any privilege. The provisions of this Section shall not be controlled or limited by any other provision of this Constitution."

I need not stop to point out the comprehensive character of this vicious measure or the hampering activities of the Public School Protective League that has undertaken to pass this Constitutional Amendment.

BETTER HEALTH MAGAZINE

Better Health magazine—the official organ of the League for the Conservation of Public Health —will deal very fully in coming issues with this and other vital issues that confront the medical profession.

Better Health will be the constant champion of modern preventive medicine. It will be the outspoken advocate of progressive health legislation. It will be interested in the enforcement as well as the enactment of laws that will insure a qualified medical profession, well directed and equipped hospitals, laboratories and other efficient agencies of modern medicine. It will be an active ally of all of these to enable them to promote and protect the public health and render a better and safer service to all.

Through the medium of Better Health the League will extend its campaign of ducation and correct

popular errors and unsound views on vital questions that hinder or prevent the progress of modern medicine. The officers and members of the League for the Conservation of Public Health are devoted to this worthy enterprise, which gives ample guarantee for its success. Better Health will win not only by the merits of its contents but by what the League stands for in California. It will be our permanent policy to maintain the highest standard of quality in all departments of Better Health. I ask all of you to give Better Health the welcome and support that I know it will merit. First read it from cover to cover yourself. Then place it in your reception room for your patients to read.

THE DOCTOR'S DUTY TO THE PUBLIC

It has often been observed that if all the truths of modern medicine could only be applied in their fulness all the time, that the health and happiness of the community would be immeasurably increased. The chief reasons that they are not applied, and that much of the scientific work of medicine is often nullified, are ignorance, prejudice and carelessness, and the heavy handicaps imposed by a combination of the three. Education of the public along health lines is the direct road to better medicine and better hospitals. Without public good will and public co-operation no movement can accomplish much. We want to preach the gospel of health to the public through the League magazine Better Health, so the larger its circulation the more the League can accomplish for the common good.

In these four Campaign issues that I have briefly outlined to you, I am sure that each of you will recognize an individual duty and responsibility. To be determined rightly these questions demand the attention and the information and the leadership which the medical profession owes the public on health questions. We are not interested in the defeat of any of these measures because of personal gain. We have no private purposes to promote and no selfish interests to advance. If these measures were in the interest of the public health, the medical profession should and would be for them; as they are a menace to the public health all of us must be against them.

Original Articles

THE FORMICATION TEST IN PERIPHERAL NERVE INJURIES—ITS INTERPRETATION*

By CHARLES L. TRANTER, M. D., San Francisco

When a new diagnostic test is proposed which promises either to give information not afforded by the customary tests, or to replace ordinary methods because it is more easily or quickly carried out, it usually receives a thorough and impartial trial by numerous workers. Few of the proposed tests, however, survive the critical investigations given them, while the majority are discarded because they add nothing of value to the

information afforded by the accepted methods of diagnosis, or because they prove to be unreliable. The formication test has been exhaustively investigated by neurologists and surgeons who were engaged in the care of peripheral nerve injuries during the recent war, because it gave promise of providing information not afforded by the routine tests, and because it was thought to be a shortcut method of diagnosis. The result of this investigation is a skepticism so great that the test is in imminent danger of being discarded. Whatever judgment is passed upon it at the present time seems destined to stand, for the experience with the comparatively small number of peripheral nerve injuries to be observed in peace times will have little weight when compared with the huge experience with similar war wounds.

Unless a different interpretation is accorded the test from the one now current in this country outside of a few neurological centers, a valuable diagnostic procedure will go unrecognized. Many of our most competent observers have recorded the presence of formication below the level of the lesion in cases in which operation demonstrated complete severance of the nerve with considerable separation of the ends. These same observers contend that the presence of formication affords no evidence of the proportion of nerve fibers that are in the process of regeneration. With the current technique these statements cannot be successfully controverted, and they would seem to warrant the discontinuance of the test, for the information afforded by it would seem to be misleading and

A technique is possible, however, embodying a measurement of the length of the zone formication and a comparison of the intensity of the formication elicited at the level of the lesion with that elicited at the lower levels, which will permit a diagnosis of complete interruption of the nerve to be made with just as much certainty when formication is present below the level of the lesion as when it is fixed at the level of the lesion, and further, which will give an indication of the proportion of nerve fibers in course of regeneration. In addition, it will furnish the surgeon with information concerning the penetrability of a lacerated, scar-enveloped, or neuroma-containing nerve, which will be the best evidence very frequently for or against excision and suture. importance of the last mentioned statement must not be underestimated for it makes an exploratory operation the rational procedure comparatively early in a majority of severe nerve injuries as it deprives this operation of the danger of removal of nerve tissue in the course of regeneration. It gives more information in doubtful cases than is afforded by inspection or palpation. Without question the most difficult problem the neuro-surgeon faces in the treatment of peripheral nerve lesions is the decision between resection and suture on the one hand and neurolysis on the other after he has exposed a lesion consisting of frayed-out nerve fibers, a neuroma in continuity, or a nerve enveloped in a mass of scar tissues. In such cases

^{*}Read before the Forty-ninth Annual Meeting of the Medical Society, State of California, Santa Barbara, May 11, 12, 13, 1920.